

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed April 28, 2004 (Paper No. 5). Upon entry of this response, claims 1-3, 6-9, 16-34 and 37-38 are pending in the application. In this response, claims 1, 6-7, 16, 32, 37, and 38 have been amended and claims 4-5, 10-15, 35-36, and 39-44 have been cancelled. Applicant respectfully requests that the amendments being filed herewith be entered and request that there be reconsideration of all pending claims.

1. **Claim Objections**

Claim 15 and 44 have been objected to under 37 CFR §1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Specifically, the Office Action objects that “the fact that an address ‘can be of any length’ does not further limit the parent claim.” (Office Action, paragraph 1.) Claims 15 and 44 are cancelled without prejudice, waiver, or disclaimer, and the objection to these claims is therefore rendered moot. Applicant takes this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicant reserves the right to pursue the subject matter of these cancelled claims in a continuing application, if Applicant so chooses, and does not intend to dedicate any of the cancelled subject matter to the public.

Claim 38 is objected to because of the following informalities: “the first line states ‘wherein said of said plurality of conditions...’, which is unclear.” (Office Action, paragraph 2.) Claim 38 has been amended to recite “wherein said plurality of conditions.” Applicant respectfully submits that this amendment overcomes the objection, and requests that the objection be withdrawn.

2. Rejection of Claims 15 and 44 under 35 U.S.C. §112

Claims 15 and 44 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as his invention. In particular, the Office Action states that “regarding claims 15 and 44, the phrase ‘can be’ renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.” (Office Action, paragraph 4.) Claims 15 and 44 are cancelled without prejudice, waiver, or disclaimer, and the rejection of these claims is therefore rendered moot. Applicant takes this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicant reserves the right to pursue the subject matter of these cancelled claims in a continuing application, if Applicant so chooses, and does not intend to dedicate any of the cancelled subject matter to the public.

3. Rejection of Claims 1-44 under 35 U.S.C. §102

Claims 1-44 have been rejected under §102(b) as allegedly anticipated by *Yamanaka* (U.S. 6,693,911). Applicant respectfully submits that these rejections have been overcome by the claim amendments made herein, or have been rendered moot by claim cancellation. A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983).

a. Claims 1 and 32

Applicant respectfully submits that *Yamanaka* fails to teach, disclose or suggest at least the feature of “wherein one of the plurality of second layer transceiver devices is granted access

to write said availability based on a detection of assertion of a synchronization signal followed by expiration of a certain amount of delay” as recited in amended claims 1 and 32.

Yamanaka discloses a system in which the ATM layer performs a polling operation to select the PHY layer which will transmit the next cell. This polling occurs while cell data is being transferred.

As shown in part (c) of FIG. 7, the polling operation commences sending, as the transmit address signal TxAddr, the address of the PHY layer device which is a candidate for the next transmit destination. As shown in part (d) of FIG. 7, the PHY layer device specified by the above address signal informs, in the next clock cycle, the ATM layer device of the state of its own cell storage buffer by the signal TxClav. (Col. 4, lines 44-52.)

Applicant respectfully submits that *Yamanaka* grants access to the PHY layer device to write its availability (TxClav) ***based on that PHY’s address being present on the TxAddr lines*** during this poll cycle. In contrast, the present invention as defined by claims 1 and 32 grants access to a particular second layer transceiver device to write availability “based on a detection of assertion of a synchronization signal followed by expiration of a certain amount of delay.”

The Office Action (paragraphs 27 and 28) asserts that these limitations are taught by another passage in *Yamanaka*, which states that “cells are transmitted to the Nth PHY layer device #N until the eighth rising edge of the transmit clock signal TxClk” (Col. 4, lines 32-24). Applicant will assume, *arguendo*, that TxClk corresponds to the “synchronization signal” recited in claims 1 and 32. and that the eighth rising edge corresponds to the “expiration of a certain amount of delay” recited in claims 1 and 32. Even so, Applicant respectfully submits that this passage clearly teaches that these signals are used to transmit cells to the PHY layer, rather than being used to determine when a PHY is “granted access to write said availability” to the TDM signal.

For at least the reason that *Yamanaka* fails to disclose, teach or suggest the feature of “wherein one of the plurality of second layer transceiver devices is granted access to write said availability based on a detection of assertion of a synchronization signal followed by expiration of a certain amount of delay,” Applicant respectfully submits that the amendments to claims 1 and 32 overcome the rejection. Therefore, Applicant requests that the Examiner’s rejection of claims 1 and 32 be withdrawn.

b. Claims 2-3, 6-9, 33-34, and 37-38

Since claims 1 and 32 are allowable, Applicant respectfully submits that claims 2-3, 6-9, 33-34, and 37-38 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicant respectfully requests that the rejection of claims 2-3, 6-9, 33-34, and 37-38 be withdrawn.

c. Claims 4-5, 10-15, 35-36, and 39-44

Claims 4-5, 10-15, 35-36, and 39-44 are cancelled without prejudice, waiver, or disclaimer, and the rejection of these claims is therefore rendered moot. Applicant takes this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicant reserves the right to pursue the subject matter of these cancelled claims in a continuing application, if Applicant so chooses, and does not intend to dedicate any of the cancelled subject matter to the public.

d. Claim 16

Applicant respectfully submits that *Yamanaka* fails to teach, disclose or suggest at least the feature of “wherein said ATM to physical layer interface module comprises: an ATM layer cell availability status device; and a physical layer cell availability status device, wherein said

ATM layer cell availability status device communicates with said ATM layer transceiver device using a second plurality of data signals and a second plurality of control signals, said second plurality of control signals distinct from first plurality of control signals,” as recited in amended claim 16.

1) *Yamanaka* does not disclose “an ATM layer cell availability status device and a physical layer cell availability status device”

Yamanaka discloses the well-known Level 2 UTOPIA interface. This interface defines the physical signals between one ATM layer device and multiple PHY layer devices (FIG. 5), and the operation of these signals to transfer ATM cells between the ATM layer device and PHY layer devices (as shown in timing diagrams in FIGs. 7-8). Thus, *Yamanaka* discloses an ATM layer device, multiple PHY layer devices, and an *interface* between the two consisting of data and control signals.

In contrast, Applicant’s claimed invention, as defined by amended claim 16, utilizes an ATM layer transceiver device, multiple PHY layer devices, and “an ATM to physical layer interface module connecting said ATM layer transceiver device and said plurality of physical layer transceiver devices.” This *interface module* in turn comprises *two devices*: an ATM layer cell availability status device; and a physical cell layer availability device. Applicant respectfully submits that *Yamanaka* does not disclose, teach, or suggest an interface module comprising “an ATM layer cell availability status device” and “a physical cell layer availability device.”

2) *Yamanaka* does not disclose two distinct sets of control signals

The UTOPIA interface disclosed in *Yamanaka* defines a single set of control and data signals, the set between the ATM device and the PHY device. In contrast, Applicant’s claimed invention, as defined by amended claim 16, utilizes two different sets of control signals as can be

seen in FIG. 4A. A first set of control signals is used between the ATM to physical layer interface module (Device 400) and the ATM layer, and between the ATM to physical layer interface module and the PHY layer (Device 450). A second set of control signals is used between the two devices making up the ATM to physical layer interface module. Applicant respectfully submits that *Yamanaka* does not disclose, teach, or suggest the feature of “said second plurality of control signals distinct from the first plurality of control signals” as recited in amended claim 16.

For at least the reason that *Yamanaka* fails to disclose, teach, or suggest the feature of “wherein said ATM to physical layer interface module comprises: an ATM layer cell availability status device; and a physical layer cell availability status device, wherein said ATM layer cell availability status device communicates with said ATM layer transceiver device using a second plurality of data signals and a second plurality of control signals, said second plurality of control signals distinct from first plurality of control signals,” Applicant respectfully submits that the amendments to claim 16 overcome the rejection. Therefore, Applicant requests that the Examiner’s rejection of claim 16 be withdrawn.

e. Claims 17-31

Since claim 16 is allowable, Applicant respectfully submits that claims 17-31 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicant respectfully requests that the rejection of claims 17-31 be withdrawn.

CONCLUSION

Applicant respectfully requests that all outstanding objections and rejections be withdrawn and that this application and presently pending claims 1-3, 6-9, 16-34 and 37-38 be allowed to issue. If the Examiner has any questions or comments regarding Applicant's response, the Examiner is encouraged to telephone Applicant's undersigned counsel.

Respectfully submitted,

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